AMENDMENTS TO THE CLAIMS:

Please amend claims 1, 54 60, 66, 110 and 112, as shown below.

This listing of claims will replace all prior versions and lists of claims in the Application.

Claim 1 (currently amended). A method for the production of titanium metal which comprises electrochemically ~~reducing~~dissolving, in a molten salt electrolyte, an anode formed of a titanium suboxide/carbon composite[[.]], and reducing the dissolved titanium suboxide, at a cathode, to titanium metal.

Claims 2-10 (canceled).

Claim 11 (original). The method of claim 1, wherein said molten salt electrolyte comprises a strong Lewis acid.

Claim 12 (original). The method of claim 11, wherein the electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride, magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

Claims 13-15 (canceled).

Claim 16 (withdrawn). An electrolytic cell for production of a metal of interest, said cell comprising in combination:

a molten salt electrolyte disposed in a cell, said electrolyte comprising a strong Lewis acid; and

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a cathode and an anode in contact with said electrolyte, wherein said anode is formed of a composite of an oxide of the metal of interest and carbon, wherein the anode is formed of a titanium oxide-or titanium suboxide-carbon composite, a chromium oxide-carbon composite, a hafnium oxide-carbon composite, a molybdenum oxide-carbon composite, a niobium oxide-carbon composite, a tantalum oxide-carbon composite, a tungsten oxide-carbon composite, a vanadium oxide-carbon composite, and a zirconium oxide-carbon composite.

Claims 17-25 (canceled).

Claim 26 (withdrawn). The cell of claim 16, wherein the electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride, magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

Claim 27 (canceled).

Claim 28 (withdrawn). The cell of claim 16, and further comprising a source of electric current connected to said cell.

Claim 29 (withdrawn). The cell of claim 28, wherein said source of electric current is connected to said cell via a current controller.

Claims 30-31 (canceled).

Claim 32 (withdrawn). The cell of claim 16, wherein the anode comprises loose pieces of said metal oxide carbon composite contained within a porous basket disposed in said electrolyte.

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Claim 33 (withdrawn). The cell of claim 16, and further comprising a valved outlet adjacent a lower wall thereof.

Claim 34 (withdrawn). The cell of claim 16, and further comprising a separator or diaphragm disposed between said anode and cathode.

Claim 35 (withdrawn). The cell of claim 34, wherein the separator or diaphragm comprises porous alumina.

Claim 36 (withdrawn). An anode for use in a molten salt electrolytic cell for electrolytic production of a metal of interest comprising a composite of an oxide of the metal of interest with carbon, wherein the metal of interest comprises a multi-valence or high valence metal or metal alloy.

Claim 37 (withdrawn). The anode of claim 36, comprising a titanium oxide-or titanium suboxide-carbon composite.

Claim 38 (withdrawn). The anode of claim 36, comprising a chromium oxide-carbon composite.

Claim 39 (withdrawn). The anode of claim 36, comprising a hafnium oxide-carbon composite.

Claim 40 (withdrawn). The anode of claim 36, comprising a molybdenum oxide-carbon composite.

Claim 41 (withdrawn). The anode of claim 36, comprising a niobium oxide-carbon composite.

Claim 42 (withdrawn). The anode of claim 36, comprising a tantalum oxide-carbon composite.

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Claim 43 (withdrawn). The anode of claim 36, comprising a tungsten oxide-carbon composite.

Claim 44 (withdrawn). The anode of claim 36, comprising a vanadium oxide-carbon composite.

Claim 45 (withdrawn). The anode of claim 36, comprising zirconium oxide-carbon composite.

Claim 46 (canceled).

Claim 47 (withdrawn). A molten salt electrolyte comprising a eutectic of sodium chloride, lithium chloride and potassium chloride.

Claim 48 (withdrawn). A molten salt electrolyte comprising an eutectic of potassium fluoride, sodium fluoride and lithium fluoride.

Claim 49 (withdrawn). A molten salt electrolyte comprising an eutectic of sodium chloride, calcium chloride and potassium chloride.

Claim 50 (withdrawn). A metal produced by the process of claim 1 in particulate, flake or solid form.

Claim 51 (withdrawn). A metal as claimed in claim 50, wherein the metal produced is selected from the group consisting of titanium, chromium, hafnium, molybdenum, niobium, tantalum, tungsten, vanadium and zirconium.

Claim 52 (withdrawn). An anode for use in a molten salt electrolytic cell for electrolytic production of titanium comprising a titanium suboxide - carbon composite.

Claim 53 (withdrawn). The anode as claimed in claim 52 wherein the titanium suboxide comprises TiO or Ti_2O_3.

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Claim 54 (currently amended). A method for the production of purified titanium from rutile ore which comprises electrowinning from an anode formed of a mixture of titanium suboxide/carbon composite in a molten salt electrolyte[[.]], and depositing purified titanium onto a cathode.

Claim 55 (original). The method of claim 54, wherein the molten salt electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride, magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

Claims 56-57 (canceled).

Claim 58 (previously presented). The method of claim 54, wherein titanium suboxide is mixed with carbon in a ratio of at least 1:1.5 over stoichiometry to produce TiC and CO_2/CO.

Claim 59 (previously presented). The method of claim 54, wherein the titanium suboxide is mixed with carbon in a ratio of at least 1:1 over stoichiometry to produce TiC and CO_2/CO.

Claim 60 (currently amended). A method for the production of purified titanium which comprises electrochemically ~~reducing~~dissolving an anode formed of a titanium suboxide/carbon composite in a molten salt electrolyte[[.]], and electrochemically reducing the dissolved titanium suboxide to purified titanium metal.

Claim 61 (original). The method of claim 60, wherein the molten salt electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride,

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magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

Claims 62-63 (canceled).

Claim 64 (previously presented). The method of claim 60, wherein titanium suboxide is mixed with carbon in a ratio of at least 1:1.5 over stoichiometry based on titanium to produce TiC and CO_2/CO.

Claim 65 (previously presented). The method of claim 60, wherein the titanium suboxide is mixed with carbon in a ratio of at least 1:1 over stoichiometry based on titanium to produce TiC and CO_2/CO.

Claim 66 (currently amended). A method for the direct production of titanium metal in a particulate state which comprises ~~subjecting~~ electrochemically dissolving an anode, formed of a titanium suboxide/carbon composite, ~~to electrolytic reduction in a cell containing~~ in a molten salt electrolyte[[.]]in an electrochemical cell, and electrochemically reducing the dissolved titanium suboxide to particulate titanium metal.

Claims 67-75 (canceled).

Claim 76 (original). The method of claim 66, wherein said molten salt electrolyte comprises a strong Lewis acid.

Claim 77 (original). The method of claim 76, wherein the electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride, magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

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Claims 78-80 (canceled).

Claim 81 (withdrawn). A process for purification of rutile which comprises reacting rutile with carbon at an elevated temperature under an inert atmosphere.

Claim 82 (withdrawn). The method of claim 81, wherein the temperature is in excess of 1200°C.

Claim 83 (withdrawn). The method of claim 82, wherein the temperature is between 1200°C and 1850°C.

Claim 84 (withdrawn). The method of claim 81, further comprising the steps of forming said purified rutile into an electrode and employing the resulting electrode in electrolytic process to produce purified titanium.

Claim 85 (original). The method of claim 60, wherein titanium suboxide-carbon composite anode is formed by heating a titanium oxide with carbon under an inert atmosphere.

Claim 86 (withdrawn). A method of production of purified titanium which comprises electrowinning titanium oxide in a molten salt of calcium fluoride at elevated temperature.

Claims 87-88 (canceled).

Claim 89 (original). The method according to claim 66, wherein the electrode is formed of a titanium oxide/carbon composite, and including the step of adding a Ti^{+2} containing compound to the electrolyte.

Claim 90 (original). The method of claim 89, wherein the Ti^{+2} containing compound is added in a concentration of ½ to 20 % by weight of the electrolyte.

Claim 91 (original). The method of claim 90, wherein the Ti^{+2} containing compound is added in a concentration of 1 to 10 % by weight of the electrolyte.

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Claim 92 (original). The method according to claim 60, wherein the anode comprises a composite of titanium suboxide and carbon, and including the step of adding a Ti^{+2} containing compound to the electrolyte.

Claim 93 (original). The method of claim 66, wherein the electrolyte includes a Ti^{+3} containing compound which is reduced in one step to titanium metal.

Claim 94 (previously presented). The method of claim 93, wherein the Ti^{+3} containing compound is added in a concentration of ½ to 20 % by weight of the electrolyte.

Claim 95 (previously presented). The method of claim 94, wherein the Ti^{+3} containing compound is added in a concentration of 1 to 10 % by weight of the electrolyte.

Claims 96-105 (canceled).

Claim 106 (withdrawn). A molten salt electrolyte comprising a mixture of fluorine salt and a chlorine salt in a fluorine/chlorine ratio of at least 0.1 for use in producing titanium by electrowinning.

Claim 107 (withdrawn). A method for the production of titanium metal which comprises electrochemically reducing a cathode formed of a titanium suboxide-carbon composite in a fused salt electrolyte.

Claim 108 (withdrawn). The method of claim 107, wherein the fused salt electrolyte comprises calcium chloride.

Claim 109 (withdrawn). The method of claim 108, wherein the fused salt electrolyte contains calcium oxide.

Claim 110 (currently amended). A method for the production of titanium metal which comprises electrochemically ~~reducing~~dissolving, in a molten salt electrolyte, an anode formed of a titanium oxide/carbon composite, wherein the molten salt electrolyte comprises a strong

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Lewis acid[[.]], and electrochemically reducing the dissolved titanium oxide to titanium metal at a cathode.

Claim 111 (previously presented). The method of claim 110, wherein the electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride, magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

Claim 112 (currently amended). A method for the direct production of titanium metal in a particulate state which comprises ~~subjecting~~ electrochemically dissolving an anode, formed of a titanium oxide/carbon composite, ~~to electrolytic reduction in a cell containing~~ a molten salt electrolyte in an electrochemical cell, wherein the molten salt electrolyte comprises a strong Lewis acid[[.]] and electrochemically reducing the dissolved titanium oxide to titanium metal.

Claim 113 (previously presented). The method of claim 112, wherein the electrolyte is selected from the group consisting of an eutectic of sodium chloride, lithium chloride and potassium chloride, an eutectic of potassium fluoride, sodium fluoride and lithium fluoride, an eutectic of sodium chloride, calcium chloride and potassium chloride, an eutectic of sodium chloride, magnesium chloride and sodium fluoride, and an eutectic of sodium chloride, potassium chloride and sodium fluoride.

Claim 114 (previously presented). The method according to claim 112, wherein the electrode is formed of a titanium oxide/carbon composite, and including the step of adding a Ti^{+2} containing compound to the electrolyte.

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Claim 115 (previously presented). The method of claim 114, wherein the Ti^{+2} containing compound is added in a concentration of ½ to 20% by weight of the electrolyte.

Claim 116 (previously presented). The method of claim 115, wherein the Ti^{+2} containing compound is added in a concentration of 1 to 10% by weight of the electrolyte.

Claim 117 (previously presented). The method of claim 112, wherein the electrolyte includes Ti^{+3} containing compound which is reduced in one step to titanium metal.

Claim 118 (previously presented). The method of claim 117, wherein the Ti^{+3} containing compound is added in a concentration of ½ to 20% by weight of electrolyte.

Claim 119 (previously presented). The method of claim 118, wherein the Ti^{+3} containing compound is added in a concentration of 1 to 10% by weight of the electrolyte.

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